

Wireless Portfolio™ GPRS



User Manual

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GSM0400MAN001 Rev A

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Regulatory Information

The equipment certifications appropriate to your device are marked on the device and product specific information. The use of the equipment is subject to the following conditions:

FCC COMPLIANCE STATEMENT

This device complies with Part 15b of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device also complies with FCC Part 24.

FCC RF EXPOSURE COMPLIANCE

This GPRS device has been tested for FCC RF exposure and SAR compliance in the host hand-held, hand-operated electronic organizer/PC. To maintain FCC RF exposure compliance, a 1cm separation distance must be maintained between the front and back of the portfolio cover containing the device and the user's or any bystander's body (excluding hands, wrist, feet and ankles).

CAUTION

Changes or modifications without the express consent of Enfora, Inc. voids the user's authority to use the equipment.

This equipment has been tested and found to comply with the limits pursuant to Part 15 Subpart B and Part 24 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in an appropriate installation. This equipment generates, uses, and can radiate radio frequency energy and, if not used in accordance with instructions, can cause harmful radiation to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference in radio and television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna

Increase the separation distance between the equipment and the receiver

Contact Enfora, Inc. Technical Support for assistance.

This equipment has been tested and found to comply with

GCF: Version 3.5

PTCRB: Version 2.6

RTTE:

Industry Canada (CSA)



Warranty Information

ENFORA, INC. 12-Month Limited Warranty

Enfora, Inc. warrants the products that it manufactures to be free from defects in materials and workmanship for a period of 12 months from the date of shipment from Enfora. This warranty is limited to the original purchaser of the product and is not transferable.

During the 12 -month warranty period, Enfora will repair or replace, at its option, any defective products or parts at no additional charge provided that the product is returned, shipping prepaid, to Enfora. The purchaser is responsible for insuring any product so returned and assumes the risk of loss during shipping. All replaced parts become the property of Enfora.

During the 12-month warranty period, Enfora will also provide any software updates/upgrades, at its option, at no additional charge. Any additional hardware that may be required to support the upgrade will be quoted as an option on request by the customer.

Equipment add-ons, software modules, or software upgrades purchased or provided at no charge for existing equipment are warranted for the length of the existing equipment warranty, extended warranty or 90 days (whichever is less).

THIS LIMITED WARRANTY DOES NOT EXTEND TO ANY PRODUCTS WHICH HAVE BEEN DAMAGED AS A RESULT OF ACCIDENT, MISUSE, ABUSE, OR AS A RESULT OF SERVICE OR MODIFICATION BY ANYONE OTHER THAN ENFORA.

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Introduction

About the Wireless Portfolio™ GPRS

Welcome to the world of wireless data. Your Wireless Portfolio™ GPRS is a compact, wireless data modem that uses the GPRS (General Packet Radio Services) wireless communication system, allowing you to transfer data on the go (i.e., without wires). Wireless IP (Internet Protocol) supports browser-based applications, giving you feature rich capability with the Internet in your hand.

About this Manual

This User Manual describes the use of Enfora's Wireless Portfolio™ GPRS with PDAs running Pocket PC 2002 / Palm OS 3.5+. Please read all instructions carefully before installing the Wireless Portfolio™ GPRS.

If you have any questions regarding installation, set up, or operation of the Wireless Portfolio™ GPRS, please contact Enfora Technical Support.

Website: <http://www.enfora.com>
Voice: (972) 578-2873
Email: techsupport@enfora.com

Contents of Basic Package

The Wireless Portfolio™ GPRS package from Enfora includes:

- Wireless Portfolio™ GPRS (GSM0400 series).
- Wall transformer (AC adapter) to charge Li-ion battery
- Installation and Documentation CD-ROM.
- Quick Start Guide

Hardware Features and LEDs



- ① **Infrared Port** - Enables transmitting and receiving data between your PDA and the Wireless Portfolio™
- ② **Connection Status** - Solid Yellow = Attempting to connect
Solid Green = Connected to the GPRS network
Flash Green= SMS received
- ③ **Reset Button** - Used to hard reset the Wireless Portfolio™
- ④ **Battery Level** - Solid Green = Power ON/Charge Complete
Solid Yellow = Battery Low
Flash Yellow = Charging
- ⑤ **Power Button** - Power On/Off
- ⑥ **DC Jack** - Connects to AC power to recharge the Battery

Registering with a Service Provider

GPRS Basics

The General Packet Radio System (GPRS) is a service that provides actual packet radio access for mobile Global System for Mobile Communications (GSM). The main benefits of GPRS are that it reserves radio resources only when there is data to send and it reduces reliance on traditional circuit-switched network elements. In addition, GPRS allows improved quality of data services as measured in terms of reliability, response time, and features supported. This technology offers:

- data transfer rates of up to 56 kbps.
- quicker call set up.
- better error correction than using modems on an analog cellular channel.

GPRS Activation Process

Just as you would do with a cell phone, you must first register for service with a local GPRS service provider. The Wireless Portfolio™ GPRS will work with any GPRS service provider. Decide which service provider offers the best plan to meet your GPRS needs, then register with that Service Provider.

You will need your IMEI device number located on the back of the Wireless Portfolio™ GPRS.

Registration

When you register for GPRS service, the service provider should give you the following information:

- **APN** - Access Point Name provides the location of access
- **IP** - If an IP is required you should make note of it, otherwise you will automatically be assigned a Dynamic IP.
- **DNS** - If a DNS is required you should make note of it, otherwise you will automatically be assigned a Dynamic DNS.

The service provider has the responsibility to warn you of any charges the carrier may make to its operations and/or procedures that would affect your usage of the service. You will be advised of your right to issue a complaint to your local regulatory agency.

GPRS Charges

For information about your GPRS charges, you will need to contact your GPRS service provider. Charges will vary according to the GPRS service provider you choose and the plan you select. Most service providers will offer several GPRS plans that vary in rates and structure. Your service provider should explain these items to you in detail when you consult them about registration.

Device Compatibility

Pocket PC 2002 Devices:

- All Pocket PC 2002 devices, must have EULA Service Pack 1 or greater, with Infrared Communication.

Palm OS Devices.

- All devices using Palm OS 3.5 and above with Infrared Communication.

Battery Operation

Prior to using the Wireless Portfolio, **charge the new battery for 2 hours** to obtain a full charge. The Wireless Portfolio™ GPRS derives its power from a self-contained battery pack to ensure there is no battery drain on the handheld device.

The Li-ion (Lithium-ion) polymer battery is composed of Lithium, the lightest metal possessing the highest electrochemical potential. Because of its light weight and high energy density, Lithium-ion batteries are ideal for portable devices. Lithium-ion batteries have no memory effect or poisonous metals, and have a long battery life (1290 mA hours).

Once charged the Wireless Portfolio™ GPRS should operate for 6-8 hrs under normal transmit and receive operating conditions. In the event of a low battery, connect the included charger to the Wireless Portfolio DC jack. The Wireless Portfolio™ GPRS is fully charged when the power indication LED displays green.

Software Installation Process

Before installing your modem software, ensure that Microsoft® ActiveSync® (for a Windows CE device) or Palm® Desktop (for a Palm device) is installed on the host computer to enable the transfer of critical files from the provided CD-ROM to your PDA. If ActiveSync® or Palm® Desktop is not installed on the host computer, please consult your device manual about installing the software.

1. Using the appropriate cable or Sync cradle (normally furnished with your Windows CE or Palm® device) connect the device to the appropriate port (USB or serial depending on specific device) of the host computer.
2. Insert the provided Installation CD-ROM into the CD drive of the host computer. On your desktop monitor, Choose **Install** for the appropriate device.
3. Follow the on-screen instructions.

Getting Started

This section explains how to setup the Wireless Portfolio™ GPRS for use with PDAs using Pocket PC 2002/Palm® OS 3.5+.

Placing the PDA into the Wireless Portfolio™

- Adhere the provided male velcro to the back of your PDA and Wireless Portfolio™ I/R port.
- Place the PDA on the inner right side of the Wireless Portfolio™
- Position the Wireless Portfolio™ I/R port in line with the I/R port of the PDA (about 1 inch away). The position of the I/R port will vary on different PDAs.



Figure 1. PDA placement



Figure 2. Infrared Port placement

Starting the Modem Manager Utility

Before starting ensure the Wireless Portfolio is ON.

Tap the **Enfora Modem Manager** icon on the **Windows CE** start menu or **Portfolio** icon on the **Palm** desktop to open the utility to start the Modem Manager software.

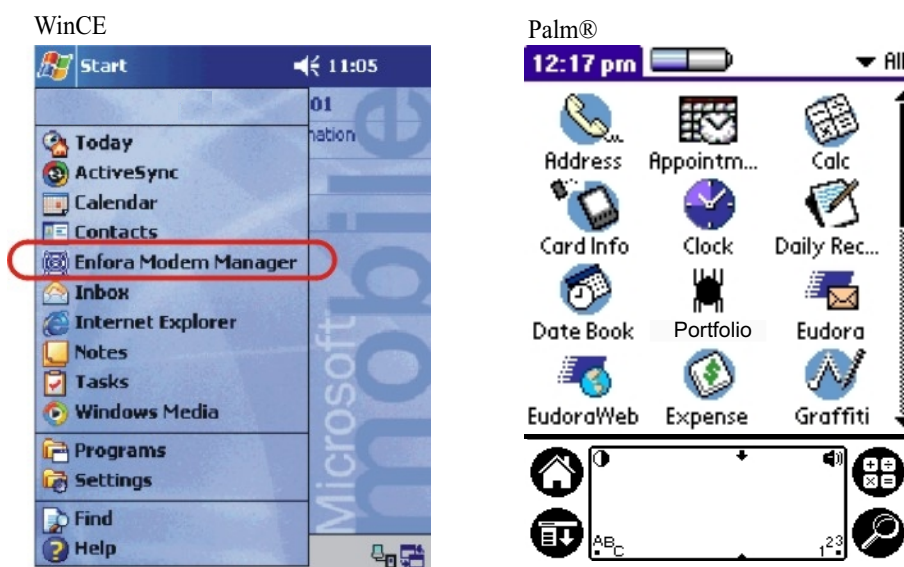


Figure 3. Enfora Modem Manager icon

Setup

When the manager is launched it automatically ATTACHES to the network, just as a wireless phone. The service provider specific settings defined in the settings are NOT needed to attach to the network, but are needed to become GPRS Data Enabled mode. The SMS settings are required to send and receive SMS.

In the attached state a user will be able to ONLY

- Receive and Place Phone Calls
- Receive and Send SMS

Before Connecting to the GSM/GPRS network you must configure the following settings.

SMS Settings:

- Only Necessary if the Utilization Code is not already on your SIM. Ask your service provider.
- Service Center Utilization Code (page 16)

GPRS Data Settings:

- APN (page 12)
- IP (page 12)
- DNS (page 12)

The following details how to access and change your necessary settings.

Accessing the Modem Settings

To access the modem settings, click **View** at the lower left portion of the Modem Manager screen, then click **Settings**.

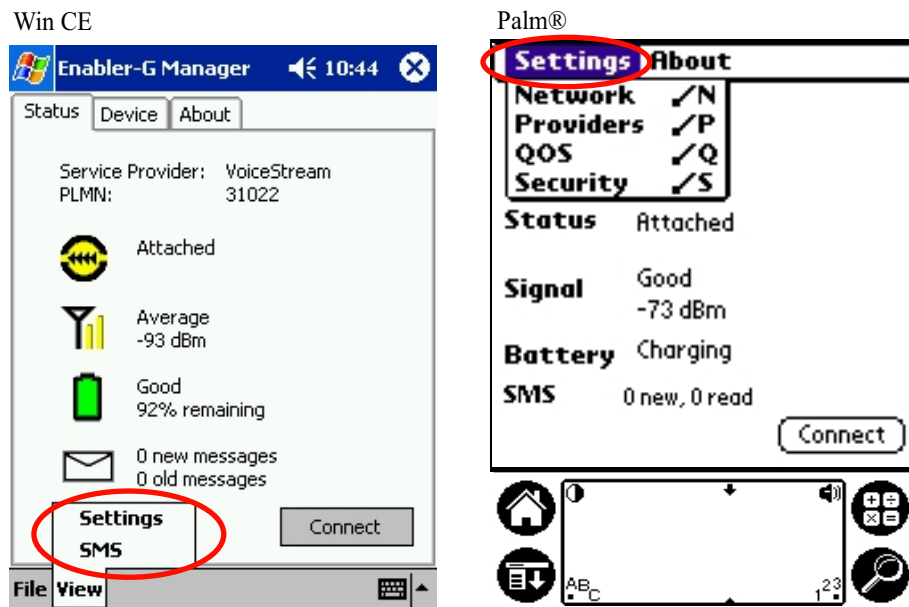


Figure 6. Accessing modem settings

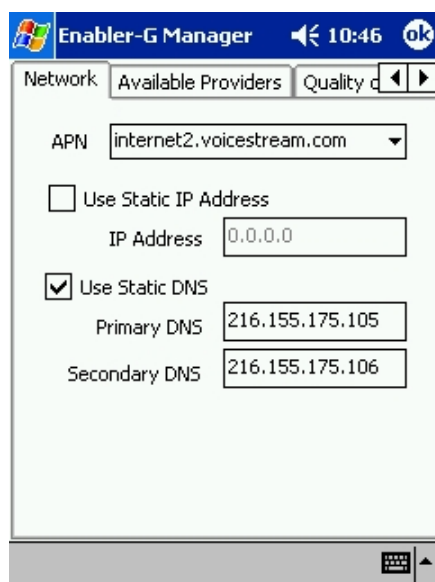
Network Settings Screen

Selecting the **Network** tab opens the **Network** settings screen. Use the settings given to you by your service provider when you registered for service.

Configurable settings are:

- **APN** - (Access Point Name) location of online access.
- **Use static IP address** - When **selected**, you may chose a specific, static **IP address**, as well as a **Primary** and **Secondary DNS** number. **DEFAULT IS NOT SELECTED**, this means you automatically get assigned a Dynamic IP and DNS number.

Win CE



Palm®

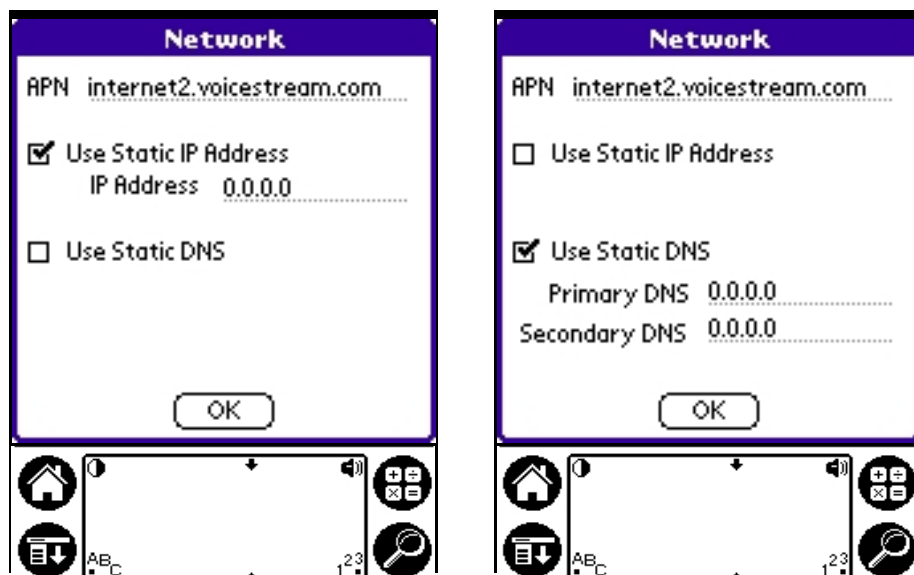


Figure 7. Accessing modem settings

NOTE: You are now ready to connect to the GPRS data network.

Advanced Settings

Available Providers Screen

This section is especially helpful when roaming in other countries. Selecting the **Available Providers** tab opens the **Available Providers** screen. By default, **Automatic service provider selection** is enabled. When selected, this allows the modem to automatically retrieve service provider data from your SIM card. Selecting **Manual service provider selection** allows you to select from a list of Available Providers on your network.

CODE IDENTIFICATION:

C - Service Provider currently using

A - Available service providers you can use on your network

F - Service providers on your network, but are unavailable because of roaming agreement.

U - Unknown

Win CE

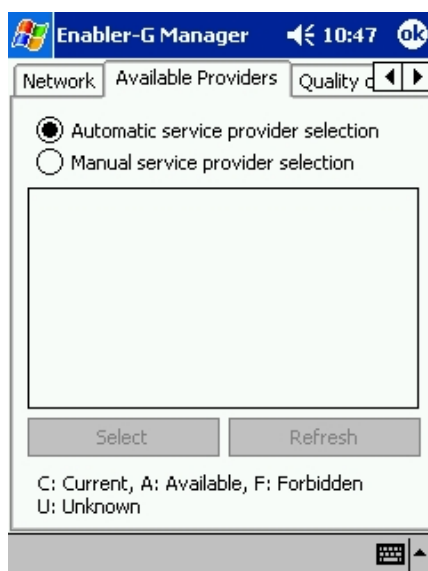


Figure 8. Provider settings

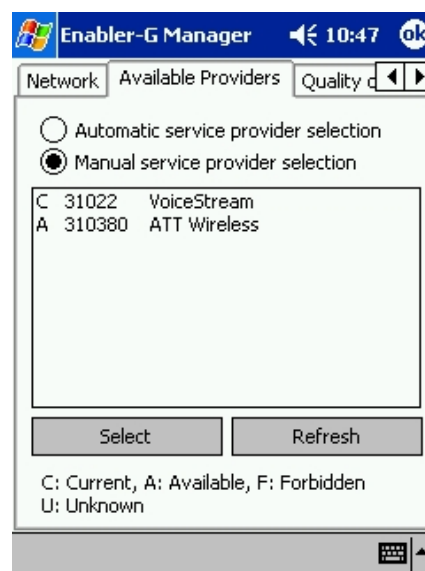


Figure 9. Manual provider settings

Palm®



Figure 10. Provider settings (Palm)



Figure 11. Manual provider settings (Palm)

Quality of Service Settings Screen

Selecting the **Quality of Service** tab opens the **Quality of Service** screen. By default, **Use Subscribed Quality of Service** is selected. When selected this enables the modem to retrieve predetermined quality of service preferences from your SIM card. Selecting **Use Requested Quality of Service** allows you to manually select quality of service settings. A Multi Slot Class defines the number of Transmit (Tx) and Receive (Rx) slots used to send and receive data, and may effect performance..

Win CE

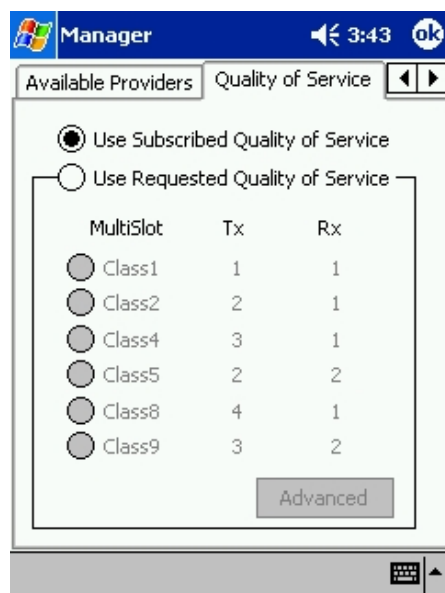


Figure 12. Subscriber Quality of Service

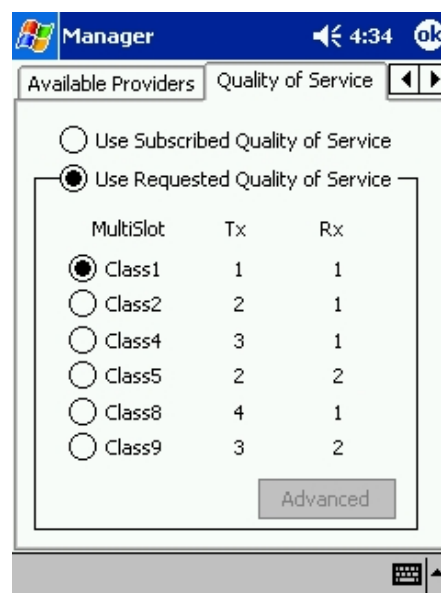


Figure 13. Requested Quality of Service

Palm®



Figure 14. Subscriber Quality of Service (Palm)

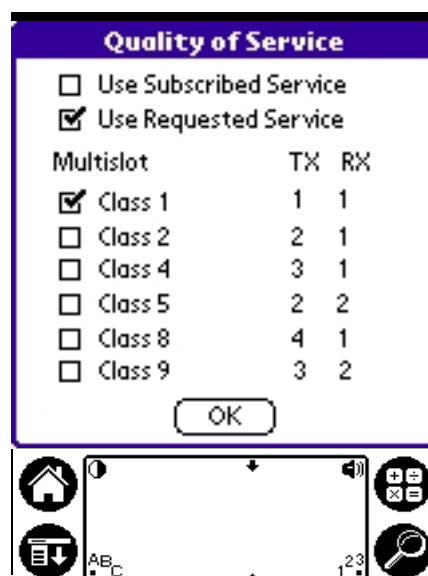


Figure 15. Requested Quality of Service (Palm)

WARNING

Using settings other than Subscribed, may cause you to incur additional cost. Please contact your service provider before changing the settings.

Security Settings Screen

Selecting the **Security** tab opens the **Security** screen. The Security screen allows you to enable or change the PIN associated with your SIM card.

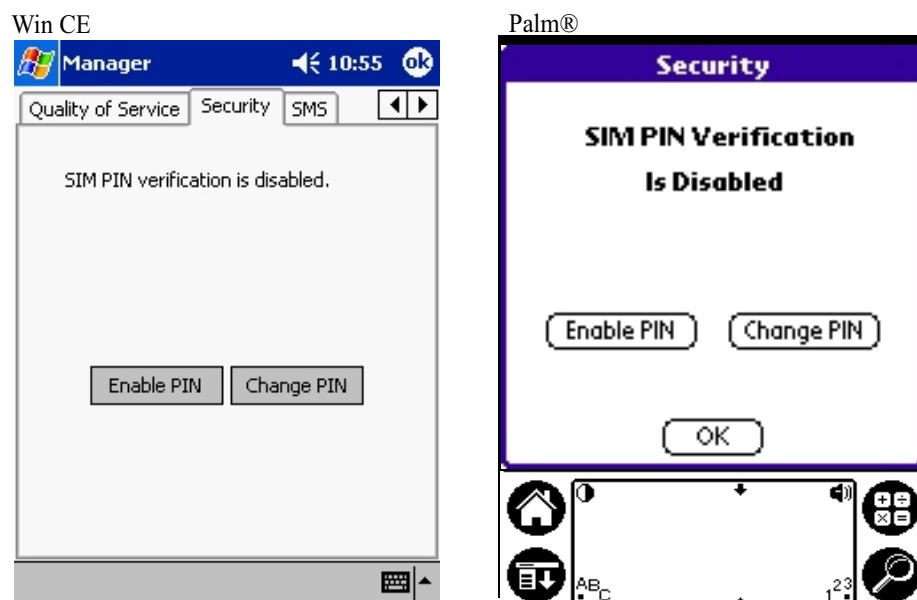


Figure 16. Security settings screen

The initial Security screen allows you to **Enable PIN** or **Change PIN** by clicking the corresponding button.

Enable PIN

Selecting **Enable PIN** allows you to enter the PIN associated with your SIM card. This PIN will be requested any time GPRS wireless activity is required, such as the use of the Internet and email applications. Tap **OK** to accept the PIN, or **Cancel** to return to the main Security screen.

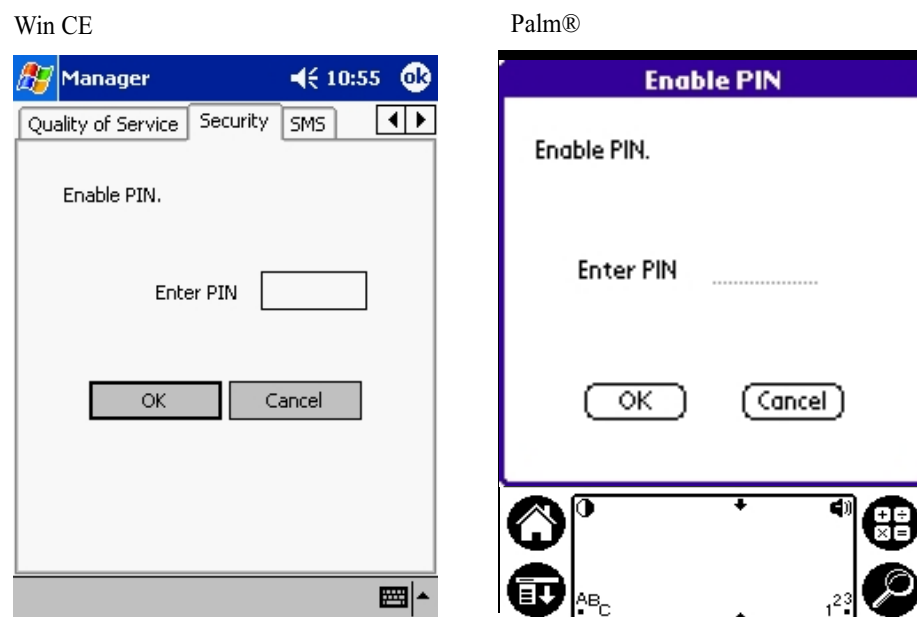


Figure 17. Enable PIN

WARNING

To prevent fraud from stolen SIM cards, after 3 failed entries the SIM card will lock. You will need to call your service provider to reset your PUK (Personal Unlock Key - page 17).

Change PIN

Selecting **Change PIN** allows you to change the PIN associated with your SIM card. To change the PIN, enter the **Old PIN**, enter the **New PIN**, then **Confirm New PIN** again. Tap **OK** to accept the PIN, or **Cancel** to return to the main Security screen.

Win CE

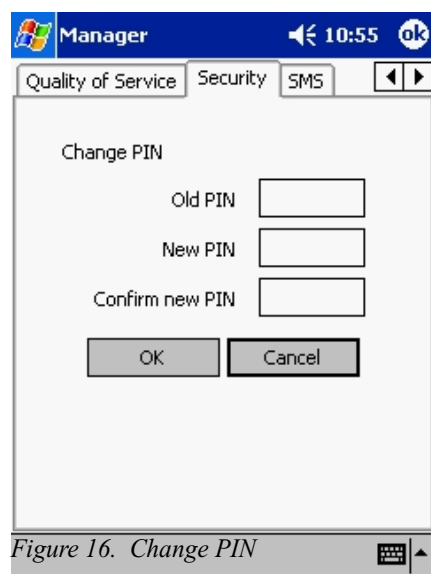


Figure 16. Change PIN

Palm®



Figure 18. Change PIN

SMS Settings Screen

Only Necessary if the Utilization Code is not already on your SIM. Ask your service provider.

Selecting the **SMS** tab opens the **SMS** screen. Enter your 12 digit service provider utilization center code to enable SMS capability.

Win CE

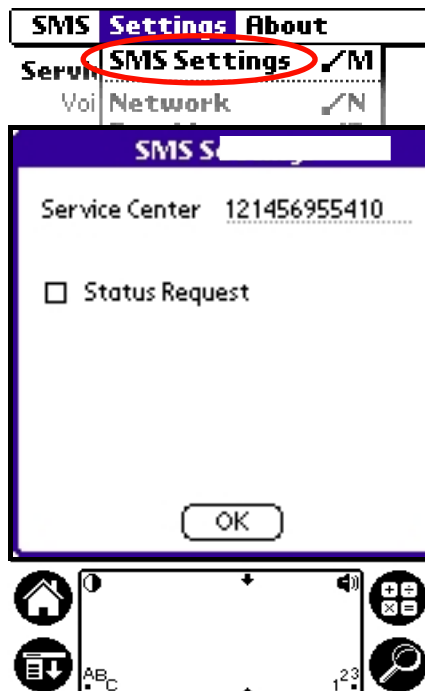
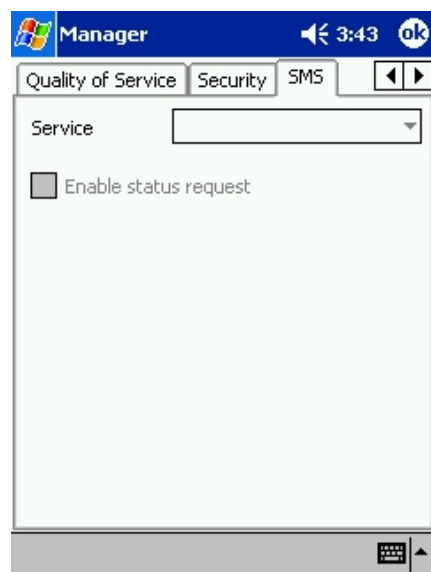


Figure 19. SMS Settings Screen

Connecting to the Wireless Data Network

To make a wireless network connection, click the **Connect** button on the **Status** screen. Prior to clicking the **Connect** button, the modem will be in **Attached** mode. In **Attached** mode, the modem is able to send and receive SMS text messages and phone calls only. Once in **GPRS Enabled** mode you are able to send and receive IP data, such as email and Internet activity.

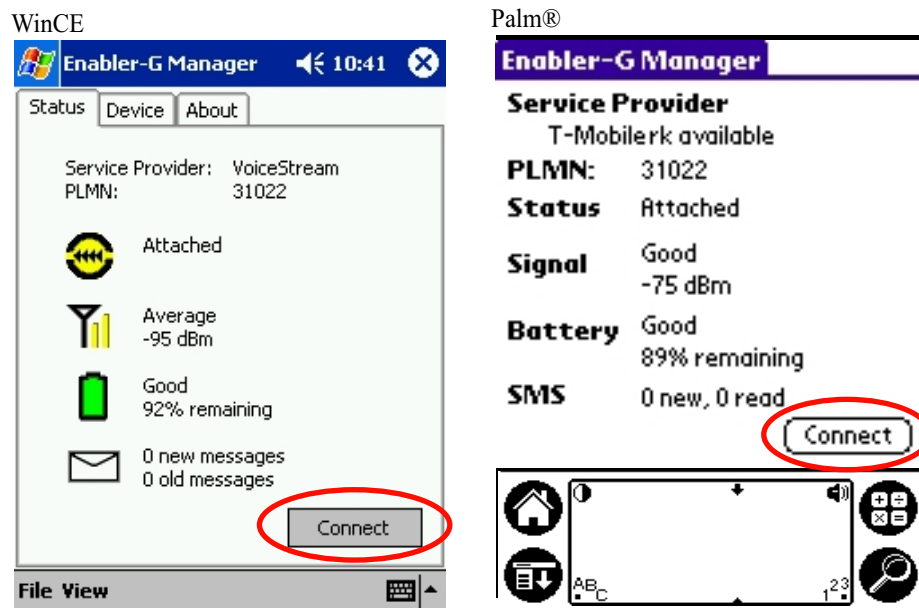
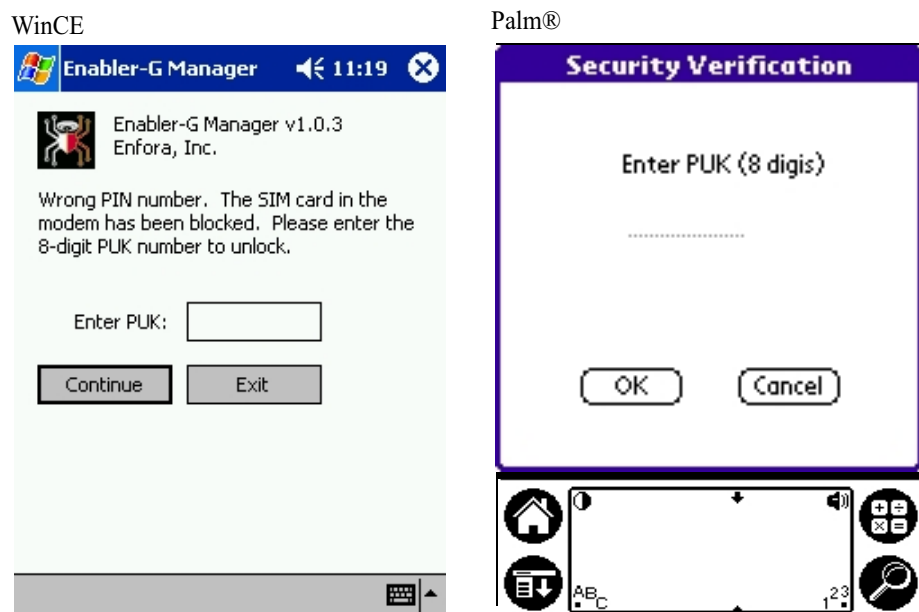


Figure 20. Making a connection

Entering your PUK (Personal Unlock Key)

Should your SIM become locked from entering an incorrect PIN, you will be unable to start the modem manager and unable to send/receive email, SMS and voice calls. (occurs only after 3 failed entries)

Please contact your service provider for your PUK and enter it when prompted by the modem manager during startup.



WARNING

Entering an incorrect PUK will render the SIM inoperable, and require you to send the SIM to your service provider.

Using SMS

Composing a Message

To send a message:

- Input the phone number(NO SPACES) of the person receiving the message
- Type the message in the compose box
- Tap send

Win CE

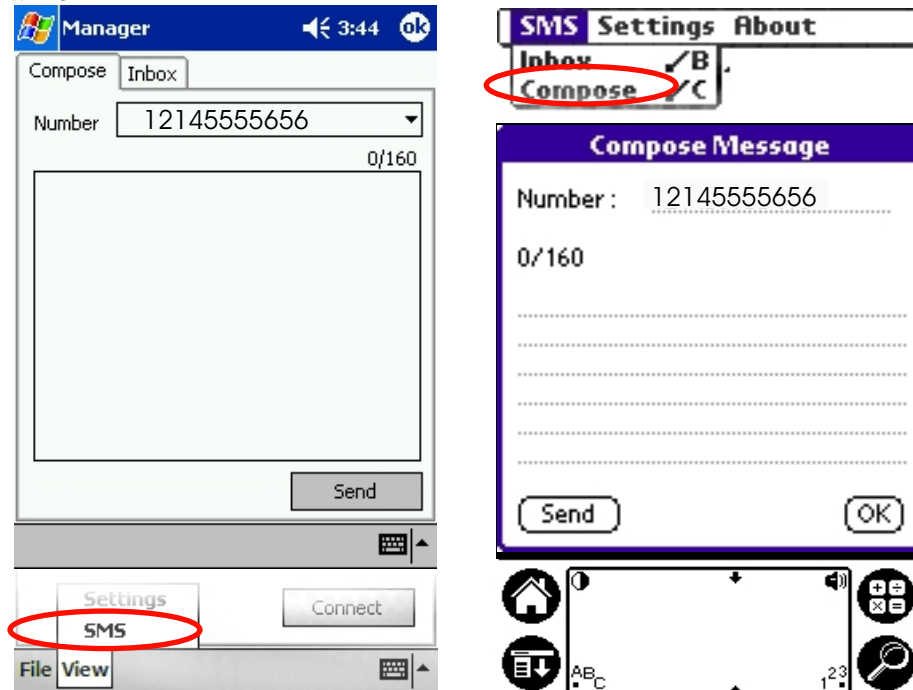
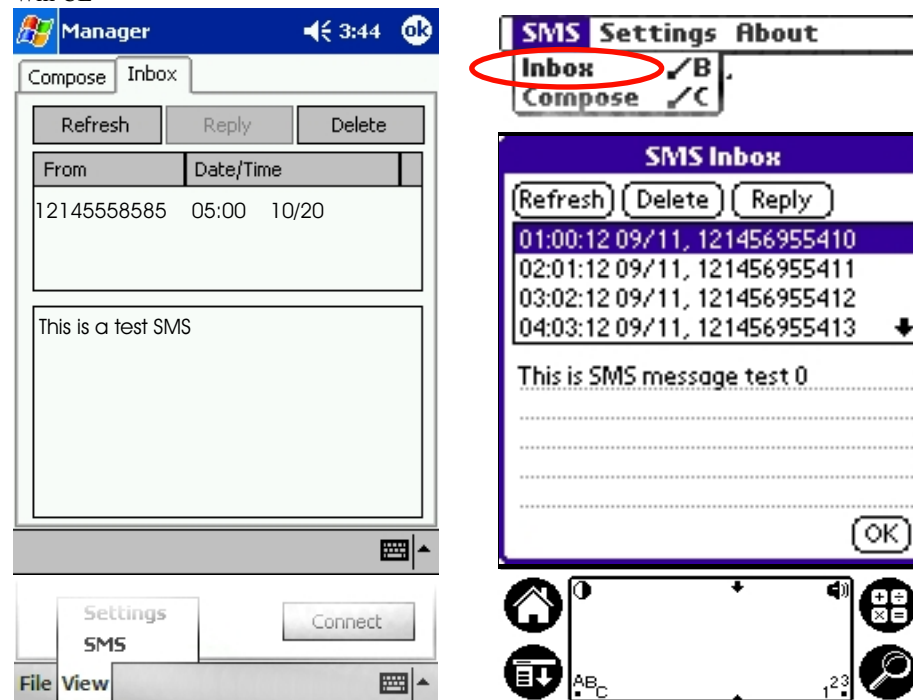


Figure 22. SMS Compose

SMS Inbox

SMS Inbox displays all received messages, and allows the user to manage the messages accordingly.

Win CE



Disconnecting From the Wireless Network

To disconnect the Wireless Portfolio from GPRS data enabled mode click on the **Disconnect** button. You will be in **Attached** mode and still able to:

- Receive and Place Phone Calls
- Receive and Send SMS

To disconnect from the network completely select **File** then **Exit** for Win CE. For **Palm** simply go to the Palm main menu.

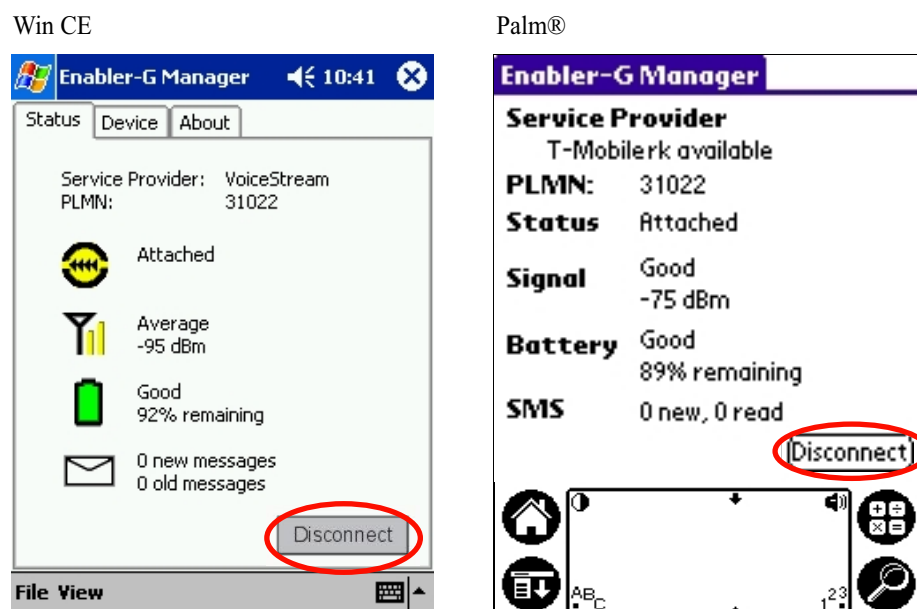


Figure 24. Disconnecting

Monitoring Modem Status

While in the **ATTACHED** state, the Status Screen provides three main areas of modem data monitoring: **Connection Status/Signal Strength/Battery**

Above the **Connection Status** area is the name of the **Service Provider** and the **PLMN** (Public LAN Mobile Network) currently in use.

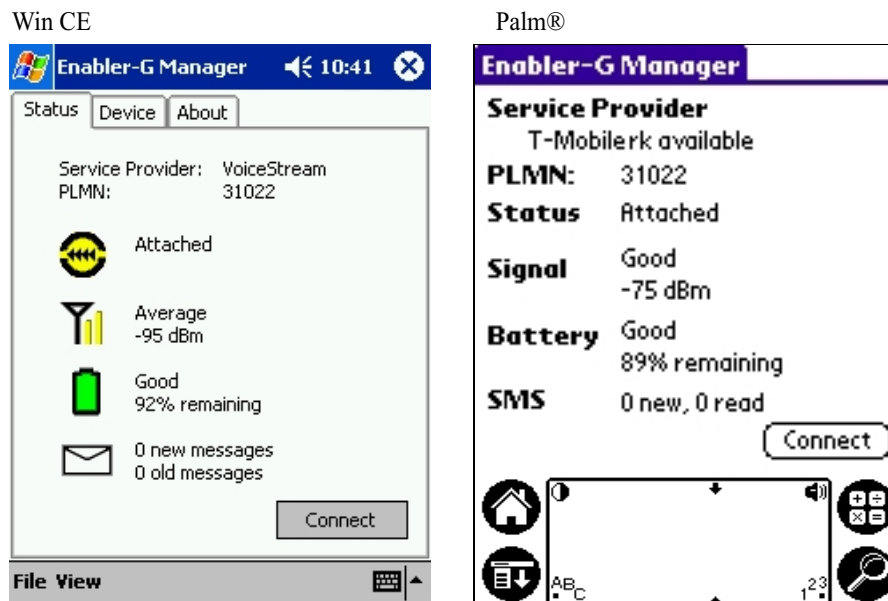


Figure 25 Modem Status

Connection Status

Connection Status descriptions are:

Not Attached = Modem is not attached to the network. Windows CE icon is **Red**.

GPRS Data Enabled = Modem is GPRS data enabled and IP data activity is allowed.

Windows CE icon **Flashes Green**.

Attached = While Attached to the network, you can receive (SMS) and make phone calls.

You can **NOT** pass IP data such as Internet activity or email. Windows CE icon is **Green**.

Trying = Modem is trying to attach to the network. Win CE icon is **Yellow**.

Off = Modem is powered off. Win CE icon is **Grey**.

Signal Strength

Signal Strength descriptions are:

Poor = Windows CE icon is **Red**.

Average = Windows CE icon is **Yellow**.

Excellent (Good) = Windows CE icon is **Green**.

Signal Strength is also displayed measured in decibels.

Battery Status

Battery Status descriptions are:

Low = WinCE icon **Flashes Red**.

Average = WinCE icon is **Yellow**.

Good = WinCE icon is **Green**.

Charging = WinCE icon will **Flash Green**.

SMS Messages

SMS notifies you if there are any new messages available.

Device Screen

To activate the **Device** Information screen, select the **Device** tab on Windows CE devices. For Palm® devices, tap the blue menu bar at the top of the display and select **Device** from the **About** menu. Here you will find information specific to your modem and SIM card.

Windows CE



Palm®

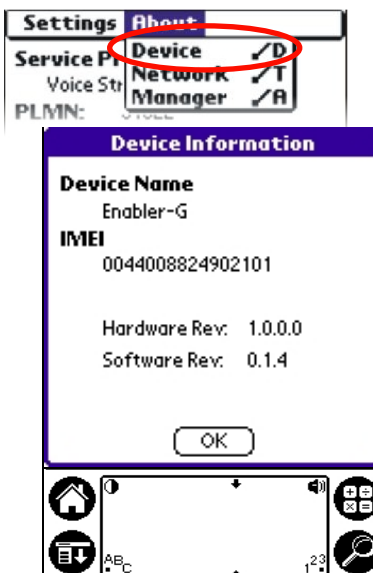


Figure 26. Modem screen tabs and Device screen

The Device screen lists the following information:

- **Device Name** - name of Enfora modem in use.
- **IMEI** - (International Mobile Equipment Identity) a number that identifies the modem, and is unique to your Wireless Portfolio™.
- **Phone Number** (WinCE only) - displays the phone number assigned to your SIM card. **
- **APN** (WinCE only) - Access Point Node. **
- **IP Address** (WinCE only) - Internet Protocol address assigned to your modem by the wireless network. **
- **Primary and Secondary DNS** numbers (WinCE only). **
- **Hardware Rev** - version of your modem hardware.
- **Software Rev** - version of your Modem Manager software.

About Screen

To activate the Modem Manager Information screen, select the **About** tab on Windows CE devices. For Palm® devices, tap the blue menu bar at the top of the display and select **Manager** from the **About** menu. Here you will find information specific to your Modem Manager software, such as software version and build date. Enfora, Inc. contact information is also listed here.

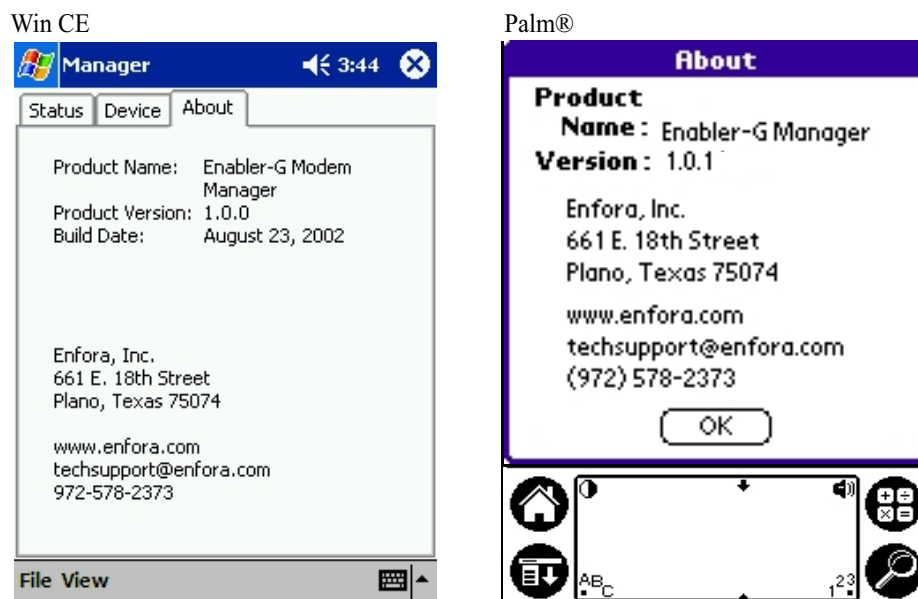


Figure 27. About screen

Troubleshooting

Resetting the Modem

At times the Wireless Portfolio™ GPRS may need to be restarted to ensure proper operation. To reset the Wireless Portfolio™ GPRS, push the Power Button to turn Wireless Portfolio™ GPRS off, then push again to power back on. If this does not clear up the problem, try resetting the PDA instead.



Figure 25. Power Button

Third-Party Applications

Internet and Email

The Wireless Portfolio GPRS modem can be used in conjunction with Internet browsers and email programs. To use Enfora's Wireless Portfolio™ GPRS with third-party wireless applications, follow the instructions provided with the software to specify the Wireless Portfolio™ GPRS as the default wireless modem connection.

Technical Support

For problems related to your network access, contact your GPRS carrier service. For technical support and customer service concerning the Wireless Portfolio™ GPRS contact Enfora.

Website: <http://www.enfora.com>

Phone: 972-578-2873

Email: techsupport@enfora.com

Before contacting technical Support, please have your modem International Modem Equipment Identify (IMEI) number ready for the Technical Support representative. If you did not record the IMEI number, you can find this in the Device Settings screen of the Modem Manager software.